

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 April 2004 (01.04.2004)

PCT

(10) International Publication Number
WO 2004/026200 A3

(51) International Patent Classification⁷: **A61L 15/22**,
15/42, A61F 13/00, C07K 17/12, A61L 26/00

(21) International Application Number:
PCT/GB2003/004019

(22) International Filing Date:
17 September 2003 (17.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0221688.5 18 September 2002 (18.09.2002) GB

(71) Applicant (for all designated States except US): **JOHN-
SON & JOHNSON MEDICAL LIMITED** [GB/GB]; Er-
skine House, 68-73 Queen Street, Edinburgh EH2 4NH
(GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CULLEN, Breda,**
Mary [GB/GB]; 7 Consort Street, Skipton, North York-
shire BD23 1HR (GB). **SILCOCK, Derek, Walter**
[GB/GB]; 2 Ash Grove, Skipton, North Yorkshire BD23
1QP (GB).

(74) Agents: **JAMES, Anthony, Christopher, W., P. et al.;**
Carpmaels & Ransford, 43 Bloomsbury Square, London
WC1A 2RA (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
2 September 2004

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: WOUND DRESSING COMPOSITIONS COMPRISING CHITOSAN AND AN OXIDISED CELLULOSE

(57) Abstract: A wound dressing composition comprising a chitosan and an oxidized cellulose. For example, the composition may be in the form of a sponge formed by freeze drying an aqueous dispersion of chitosan and oxidized regenerated cellulose (ORC). The composition is especially suitable for the treatment of chronic wounds.



WO 2004/026200 A3

INTERNATIONAL SEARCH REPORT

International Application No.

7/03 03/04019

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61L15/22 A61L15/42 A61F13/00 C07K17/12 A61L26/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/00180 A (WATT PAUL WILLIAM ; HARVEY WILSON (GB); LORIMER ELAINE (GB); JOHNSON &) 8 January 1998 (1998-01-08) cited in the application page 3, line 29 - page 4, line 19 page 8, line 3 - line 11	1-20
A	EP 0 437 095 A (JOHNSON & JOHNSON MEDICAL) 17 July 1991 (1991-07-17) cited in the application claims 1,3-6,8-10	1-20
A	EP 0 393 825 A (AGENCY IND SCIENCE TECHN) 24 October 1990 (1990-10-24) cited in the application claims 1-5	1-20

-/--

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

22 June 2004

Date of mailing of the international search report

01/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Heck, G

INTERNATIONAL SEARCH REPORT

International Application No

T/AB 03/04019

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 736 835 A (ABER TECHNOLOGIES) 24 January 1997 (1997-01-24) claims 1-7	1-20
A	----- US 6 201 164 B1 (NIELSEN PETER SYLVEST ET AL) 13 March 2001 (2001-03-13) cited in the application claims 3,5-12 -----	1-20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 03/04019

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 17, 18 and 20 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

T/ 03/04019

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9800180	A	08-01-1998	GB 2314842 A AT 247493 T AU 737809 B2 AU 3269297 A BR 9710177 A CA 2258990 A1 CZ 9804251 A3 DE 69724257 D1 EP 1325754 A1 EP 0918548 A1 ES 2205237 T3 WO 9800180 A1 JP 2000513258 T KR 2000022287 A PL 330824 A1 PT 918548 T	14-01-1998 15-09-2003 30-08-2001 21-01-1998 18-01-2000 08-01-1998 12-05-1999 25-09-2003 09-07-2003 02-06-1999 01-05-2004 08-01-1998 10-10-2000 25-04-2000 07-06-1999 28-11-2003
EP 0437095	A	17-07-1991	AT 183205 T AU 639288 B2 AU 6851390 A BR 9100114 A CA 2033046 A1 DE 69033243 D1 DE 69033243 T2 EP 0437095 A2 ES 2134189 T3 GR 91100013 A , B IE 910095 A1 IN 171160 A1 JP 3285887 B2 JP 6199903 A NZ 236704 A US 5134229 A ZA 9010368 A	15-08-1999 22-07-1993 18-07-1991 22-10-1991 13-07-1991 16-09-1999 05-01-2000 17-07-1991 01-10-1999 25-06-1992 17-07-1991 08-08-1992 27-05-2002 19-07-1994 26-05-1992 28-07-1992 26-08-1992
EP 0393825	A	24-10-1990	JP 1936953 C JP 2281050 A JP 6086548 B DE 69009840 D1 DE 69009840 T2 EP 0393825 A1	09-06-1995 16-11-1990 02-11-1994 21-07-1994 20-10-1994 24-10-1990
FR 2736835	A	24-01-1997	FR 2736835 A1 AU 6618196 A WO 9703708 A1	24-01-1997 18-02-1997 06-02-1997
US 6201164	B1	13-03-2001	AT 264119 T AU 3336297 A DE 69728678 D1 WO 9802196 A1 EP 0928206 A1	15-04-2004 09-02-1998 19-05-2004 22-01-1998 14-07-1999